

[(hIGF)] (IGF) sequence substantially free of nucleic acid molecules not [containing] comprising said [h]IGF sequence, wherein said [h]IGF sequence is selected from the group consisting of:

- (a) 5'-GGA CCG GAG ACG CUC UGC GGG GCU GAG CUG GUG GAU GCU CUU CAG UUC GUG UGU GGA GAC AGG GGC UUU UAU UUC AAC AAG CCC ACA GGG UAU GGC UCC AGC AGU CGG AGG GCG CCU CAG ACA GGU AUC GUG GAU GAG UGC UGC UUC CGG AGC UGU GAU CUA AGG AGG CUG GAG AUG UAU UGC GCA CCC CUC AAG CCU GCC AAG UCA GCU-3', wherein U can also be T;
- (b) 5'-GCU UAC CGC CCC AGU GAG ACC CUG UGC GGC GGG GAG CUG GUG GAC ACC CUC CAG UUC GUC UGU GGG GAC CGC GGC UUC UAC UUC AGC AGG CCC GCA AGC CGU GUG AGC CGU CGC AGC CGU GGC AUC GUU GAG GAG UGC UGU UUC CGC AGC UGU GAC CUG GCC CUC CUG GAG ACG UAC UGU GCU ACC CCC GCC AAG UCC GAG-3', wherein U can also be T;
- (c) a nucleic acid sequence[s] complementary to (a) or (b); and
- (d) a fragment[s] of (a), (b) or (c) that [are] is at least 18 bases in length [and which will selectively hybridize to human genomic DNA encoding hIGF].

2. (Amended) A composition according to claim 1 wherein said [h]IGF [is hIGF-I and said hIGF] sequence is sequence (a).

3. (Amended) A composition according to claim 1 wherein said [h]IGF [is hIGF-II and said hIGF] sequence is sequence (b).

4. (Amended) A composition according to claim 2 wherein said nucleic acid molecule[s] comprises the following sequence, wherein U can also be T:

5'-CUG GCG CUG UGC CUG CUC ACC UUC ACC AGC UCU GCC ACG GCU GGA CCG
GAG ACG CUC UGC GGG GCU GAG CUG GUG GAU GCU CUU CAG UUC GUG UGU
GGA GAC AGG GGC UUU UAU UUC AAC AAG CCC ACA GGG UAU GGC UCC AGC
AGU CGG AGG GCG CCU CAG ACA GGU AUC GUG GAU GAG UGC UGC UUC CGG
AGC UGU GAU CUA AGG AGG CUG GAG AUG UAU UGC GCA CCC CUC AAG CCU
GCC AAG UCA GCU CGC UCU GUC CGU GCC CAG CGC CAC ACC GAC AUG CCC
AAG ACC CAG AAG GAA GUA CAU UUG AAG AAC GCA AGU AGA GGG AGU GCA
GGA AAC AAG AAC UAC AGG AUG-3'.

5. (Amended) A composition according to claim 3 wherein said nucleic acid molecule[s] comprises the following sequence, wherein U can also be T:

5'-AUG GGA AUC CCA AUG GGG AAG UCG AUG CUG GUG CUU CUC ACC UUC UUG
GCC UUC GCC UCG UGC UGC AUU GCU GCU UAC CGC CCC AGU GAG ACC CUG
UGC GGC GGG GAG CUG GUG GAC ACC CUC CAG UUC GUC UGU GGG GAC CGC
GGC UUC UAC UUC AGC AGG CCC GCA AGC CGU GUG AGC CGU CGC AGC CGU
GGC AUC GUU GAG GAG UGC UGU UUC CGC AGC UGU GAC CUG GCC CUC CUG
GAG ACG UAC UGU GCU ACC CCC GCC AAG UCC GAG AGG GAC GUG UCG ACC
CCU CCG ACC GUG CUU CCG GAC AAC UUC CCC AGA UAC CCC GUG GGC AAG

UUC UUC CAA UAU GAC ACC UGG AAG CAG UCC ACC CAG CGC CUG CGC AGG
GGC CUG CCU GCC CUC CUG CGU GCC CGC CGG GGU CAC GUG CUC GCC AAG
GAG CUC GAG GCG UUC AGG GAG GCC AAA CGU CAC CGU CCC CUG AUU GCU
CUA CCC ACC CAA GAC CCC GCC CAC GGG GGC GCC CCC CCA GAG AUG GCC
AGC AAU CGG AAG UGA-3'.

6. (Amended) A composition according to claim 1 wherein said nucleic acid molecule[s] [are] is DNA.

7. (Amended) A composition according to claim 1 wherein said nucleic acid molecule[s] [are] is RNA.

8. (Amended) A composition comprising cellular hosts transformed by a heterologous DNA sequence substantially free of cellular hosts that do not contain said heterologous DNA sequence, wherein said heterologous DNA sequence [is a human sequence encoding] comprises an insulin-like growth factor [(hIGF)] (IGF) sequence selected from the group consisting of:

(a) 5'-GGA CCG GAG ACG CTC TGC GGG GCT GAG CTG GTG GAT GCT CTT CAG TTC
GTG TGT GGA GAC AGG GGC TTT TAT TTC AAC AAG CCC ACA GGG TAT GGC TCC
AGC AGT CGG AGG GCG CCT CAG ACA GGT ATC GTG GAT GAG TGC TGC TTC
CGG AGC TGT GAT CTA AGG AGG CTG GAG ATG TAT TGC GCA CCC CTC AAG CCT

GCC AAG TCA GCT-3';

- (b) 5'-GCT TAC CGC CCC AGT GAG ACC CTG TGC GGC GGG GAG CTG GTG GAC
ACC CTC CAG TTC GTC TGT GGG GAC CGC GGC TTC TAC TTC AGC AGG CCC GCA
AGC CGT GTG AGC CGT CGC AGC CGT GGC ATC GTT GAG GAG TGC TGT TTC CGC
AGC TGT GAC CTG GCC CTC CTG GAG ACG TAC TGT GCT ACC CCC GCC AAG TCC
GAG-3';
(c) a nucleic acid sequence[s] complementary to (a) or (b); and
(d) a fragment[s] of (a), (b) or (c) that [are] is at least 18 bases in length [and which will
selectively hybridize to human genomic DNA encoding hIGF].

GB 1
9. (Amended) A composition according to claim 8 wherein said [heterologous
DNA] IGF sequence is selected from the group consisting of (a), (b) and (c).

Sub D2 Unit
10. (Amended) A composition according to claim 9 wherein said [h]IGF [is
hIGF-I and said heterologous DNA] sequence is sequence (a).

Sub D2 Unit
11. (Amended) A composition according to claim 9 wherein said [h]IGF [is
hIGF-II and said heterologous DNA] sequence is sequence (b).

Sub D2 Unit
18. (Amended) A composition consisting essentially of nucleic acid molecules
[containing a human sequence encoding] comprising an insulin-like growth factor [(hIGF)] (IGF)

sequence selected from the group consisting of:

- (a) 5'-GGA CCG GAG ACG CUC UGC GGG GCU GAG CUG GUG GAU GCU CUU CAG
UUC GUG UGU GGA GAC AGG GGC UUU UAU UUC AAC AAG CCC ACA GGG UAU
GGC UCC AGC AGU CGG AGG GCG CCU CAG ACA GGU AUC GUG GAU GAG UGC
UGC UUC CGG AGC UGU GAU CUA AGG AGG CUG GAG AUG UAU UGC GCA CCC
CUC AAG CCU GCC AAG UCA GCU-3', wherein U can also be T;
B2
(b) 5'-GCU UAC CGC CCC AGU GAG ACC CUG UGC GGC GGG GAG CUG GUG GAC
ACC CUC CAG UUC GUC UGU GGG GAC CGC GGC UUC UAC UUC AGC AGG CCC
GCA AGC CGU GUG AGC CGU CGC AGC CGU GGC AUC GUU GAG GAG UGC UGU
UUC CGC AGC UGU GAC CUG GCC CUC CUG GAG ACG UAC UGU GCU ACC CCC
GCC AAG UCC GAG-3', wherein U can also be T;
(c) a nucleic acid sequence[s] complementary to (a) or (b); and
(d) a fragment[s] of (a), (b) or (c) that [are] is at least 18 bases in length [and which will
selectively hybridize to human genomic DNA encoding hIGF].
Sab D4 cont

19. (Amended) A composition according to claim [9] 8 wherein said cellular host is *E. coli* strain HB101(phigf1).

20. (Amended) A composition according to claim 1 wherein said nucleic acid [molecules are] molecule is the plasmid phigf1.

July 21
21. (Amended) A composition according to claim [9] 8 wherein said cellular host is *E. coli* strain HB101(phigf2).

B2
22. (Amended) A composition according to claim 1 wherein said nucleic acid [molecules are] molecule is the plasmid phigf2.

B3
Cancel previously-submitted claims 23-30, 31-35 and 40-41 and replace them with amended claims 23-30, 31-35 and 40-41 as follows:

B3
-- 23. A method of producing a polypeptide in a suitable transformed host cell, which method comprises expressing in said host cell a nucleic acid sequence encoding said polypeptide, wherein said nucleic acid sequence comprises an IGF sequence selected from the group consisting of the IGF sequences of parts (a), (b), (c) and (d) of claim 1.

B3
24. A method of producing a polypeptide which comprises introducing into a suitable host cell a nucleic acid molecule comprising a nucleic acid sequence encoding said polypeptide, wherein said nucleic acid sequence comprises an IGF sequence selected from the group consisting of the IGF sequences of parts (a), (b), (c) and (d) of claim 1, and expressing said nucleic acid sequence in said host cell.

25. The method of claim 24 wherein said polypeptide is IGF-I and said IGF sequence is a sequence of part (a).

26. The method of claim 24 wherein said polypeptide is IGF-II and said IGF sequence is a sequence of part (b).

27 . A method of producing a polypeptide which comprises introducing into a suitable host cell a nucleic acid molecule comprising a nucleic acid sequence encoding said polypeptide, wherein said nucleic acid sequence comprises the IGF sequence of claim 4, and expressing said nucleic acid sequence in said host cell.

28 . A method of producing a polypeptide which comprises introducing into a suitable host cell a nucleic acid molecule comprising a nucleic acid sequence encoding said polypeptide, wherein said nucleic acid sequence is a sequence of claim 5, and expressing said nucleic acid sequence in said host cell.

29. The method of claim 24 wherein said nucleic acid molecule is the plasmid phigf1.

30. The method of claim 24 wherein said nucleic acid molecule is the plasmid phigf2.

31. A method of producing a polypeptide which comprises expressing the heterologous DNA sequence in the transformed host cells of a composition of claim 8.

32. A method of producing a polypeptide which comprises expressing the heterologous DNA sequence in the transformed host cells of claim 10.

33. A method of producing a polypeptide which comprises expressing the heterologous DNA sequence in the transformed host cells of claim 11.

34. A method of producing a polypeptide which comprises expressing the heterologous DNA sequence in the transformed host cells of a composition of claim 12.

35. A method of producing a polypeptide which comprises expressing the heterologous DNA sequence in the transformed host cells of a composition of claim 13.

Sub-D 40. The method of claim 31 wherein said transformed host cell is *E. coli* strain HB101(phigf1).

Sub-D 41. The method of claim 31 wherein said transformed host cell is *E. coli* strain HB101(phigf2). --